

Mineral Industry Surveys

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VANADIUM IN JANUARY 2000

According to Metal Bulletin, U.S. ferrovanadium prices during January ranged from \$4.30 to \$4.45 per pound of vanadium content, compared with \$4.35 to \$4.65 in December. The range for European ferrovanadium prices was \$7.45 to \$8.80 per kilogram in January. In December, European ferrovanadium prices ranged from \$7.45 to \$7.95. For vanadium pentoxide, the January range as published by Metal Bulletin was \$1.25 to \$1.60 per pound, while in December it was \$1.25 to \$1.40 per pound.

Prices for vanadium pentoxide and ferrovanadium increased

during January. Individuals familiar with the industry attributed the higher prices in part to production cutbacks, which reduced the supply of available material (Metal Bulletin, 2000).

Reference Cited

Metal Bulletin, 2000, Vanadium continues upward climb: Metal Bulletin, no. 8446, January 31, p. 10.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM 1/

(Kilograms, contained vanadium)

	1999 p/				2000	
	January-December		December		January	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium 2/	3,370,000	303,000	273,000	303,000	276,000	287,000
Vanadium-aluminum alloy	W	13,000	W	13,000	W	12,300
Other 3/	459,000	9,790	37,300	9,790	37,600	9,250
Total	3,830,000	326,000	311,000	326,000	313,000	308,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

3/ Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol "W".

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE 1/

(Kilograms, contained vanadium)

	1999 p/ 2/		2000 January
	January-December	December	
Steel:			
Carbon	1,160,000	96,500	94,500
High-strength low-alloy	949,000 r/	72,800	76,400
Stainless and heat-resisting	81,500 r/	7,710	10,100
Full alloy	840,000 r/	63,700	78,000
Tool	343,000	28,400	31,000
Total steel	3,370,000	269,000	290,000
Superalloys	15,400	1,380	1,470
Miscellaneous and unspecified 3/	443,000	40,300	22,000
Total consumption	3,830,000	311,000	313,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include revisions to previous months' data.

3/ Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND
VANADIUM METAL, INCLUDING WASTE AND SCRAP 1/

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
1998	298,000	\$496,000	12,200	\$491,000
1999:				
October	99,200	121,000	100	12,800
November	3,550	10,600	1,140	79,400
December:				
Russia	--	--	6,170	28,500
Year to date p/ 2/	1,210,000	1,680,000	30,400	779,000
Exports:				
1998	856,000	11,500,000	346,000	7,160,000
1999:				
October	49,500	325,000	25,600	339,000
November	51,300	784,000	23,400	399,000
December:				
Canada	34,400	433,000	--	--
Germany	3,460	44,900	--	--
Israel	427	6,410	--	--
Japan	1,150	26,300	50	8,750
Mexico	37,500	589,000	--	--
Philippines	659	8,570	--	--
Total	77,600	1,110,000	50	8,750
Year to date	514,000	6,440,000	177,000	3,200,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include revisions to previous months' data.

Source: Bureau of the Census.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM 1/

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) 2/		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
1998	1,620,000	\$39,300,000	847,000	\$12,300,000	33,000	\$574,000
1999:						
October	219,000	2,220,000	30,800	274,000	--	--
November	169,000	1,520,000	--	--	--	--
December:						
Belgium	47,700	372,000	--	--	--	--
China	46,800	383,000	--	--	--	--
South Africa	82,800	672,000	32,100	267,000	--	--
Total	177,000	1,430,000	32,100	267,000	--	--
Year to date	1,930,000	20,700,000	208,000	1,920,000	--	--
Exports:						
1998	579,000	13,700,000	681,000	6,850,000	232,000	2,830,000
1999:						
October	1,680	26,900	62,100	334,000	4,700	57,800
November	89	9,020	2,940	25,900	1,360	19,500
December:						
Australia	--	--	333	3,150	--	--
Brazil	--	--	490	2,830	--	--
Canada	--	--	--	--	1,520	69,700
France	--	--	768	7,290	--	--
Italy	--	--	1,140	10,800	--	--
Japan	1,580	52,600	--	--	--	--
Mexico	1,680	55,900	--	--	--	--
Switzerland	--	--	18	3,010	--	--
Total	3,260	109,000	2,750	27,100	1,520	69,700
Year to date p/ 3/	213,000	3,180,000	747,000	4,270,000	69,700	656,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include catalysts containing vanadium pentoxide.

3/ May include revisions to previous months' data.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG 1/

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)		Slag, from the manufacture of iron and steel	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
1998	3,030,000	\$9,960,000	2,280,000	\$1,710,000	1,250,000	\$10,500,000
1999:						
October	142,000	78,200	353,000	161,000	292,000	378,000
November	--	--	452,000	179,000	--	--
December:						
Canada	--	--	251,000	132,000	--	--
Year to date	1,800,000	6,940,000	2,700,000	1,360,000	1,150,000	1,740,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS 1/

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
Imports for consumption:				
1998	350	\$19,300	129,000	\$1,410,000
1999:				
October	--	--	16,000	165,000
November	--	--	43,700	324,000
December:				
Germany	--	--	14,800	65,500
South Africa	--	--	11,400	74,000
Total	--	--	26,200	140,000
Year to date p/ 2/	8	14,300	174,000	1,640,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include revisions to previous month's data.

Source: Bureau of the Census.